

As shown in the drawing, a plurality of pixels **50** are arranged in the display panel and the respective positions of the pixels are represented in the x-y coordinates. For driving the pixels, the outer electrodes are drawn out from the two sides of the display panel having the four sides. However, for the production of on a large scale and a competitive price, a single driving drive I.C with a single integrated chip may be used.

As shown in FIG. **22**, the electrode array **51** in the x axis is drawn out from one side of the display panel, while the electrode array in the y axis is divisionally drawn out from the two opposite sides of the display panels and the divisional two electrode arrays **52** and **53** are arranged in the same direction of the x axis electrode array via two coupling electrode arrays **52a** and **53a**. The coupling electrode arrays **52a** and **53a** are roughly shown in the drawing for the simplicity thereof. The outer electrode arrays are enlarged by circle C.

As the outer electrode is arranged at one side of the display panel **2a** and **4a**, the driving driver for transferring the data signal and common signal which is formed in a single integrated circuit chip, are coupled to the display panel.

In this case, it is preferred that the outer electrode for transferring the data signal and common signal is disposed at the side opposite to the side where the joint portion **8** between the two display panels **2a** and **4a** is located.

FIGS. **23** and **24** are views showing another embodiment of the display device according to the present invention, where the outer electrode is provided at the side opposite to the joint portion of the supporting member.

FIG. **23** shows the outer electrode **2k** comprising the outer electrode arrays **51**, **52** and **53** for coupling the driving driver supplying the data signal and common signal to the display panel **2a**. The electrode **2k** is disposed at the opposite side to the joint portion **8** of the supporting member **160**. The coupling electrodes **52a** and **53a**, or the outer electrode array **51**, **52** and **53** are not disposed at the joint portion **8** of the display panel **2a**, thereby minimizing the non-display area.

A circuit coupler **2e** is coupled to the outer electrode **2k** for transferring the signals from the driving circuit to the display panel. The supporting member **160** is mounted on the panel housings **20** and **40** or on the chassis **16** by the fixing plate **161** with a screw hole **161a**.

The circuit coupler **2e** is disposed at the opposite side to the joint portion **8** to minimize the width of the joint portion **8**.

Although the sidewall of the display panel **2a** is exposed at the side of the joint portion **8** of the supporting member **160**, if necessary, such exposure may be prevented or the synthetic resin may be applied at the sidewall of the display panel or back light for its protection.

FIG. **24** shows two supporting members symmetrically assembled each other. When the panel housings **20** and **40** are unfolded, the supporting members **160** with the display panels **2a** and **4a** are symmetric around the joint portion **8**.

As shown in the drawing, the outer electrodes **2k** of the display panel **2a** in the supporting member **160** are located at the opposite side to the joint portion **8**, and the display panel **2a** is coupled to the driving circuit board via the circuit couplers **2e** and **4e**.

FIGS. **25** and **26** show the chassis wherein the supporting member is mounted thereon.

As shown in the drawings, the upper portion of the joint portion **8** in the chassis **16** is not covered, but the side is covered. The sidewall of the chassis around the joint portion is thinner than other area thereof. Therefore, the non-display area may be minimized.

Also, as shown in FIG. **26**, the sidewall of the chassis **16** around the joint portion may be opened, so that the sidewall of the display panel **2a** is exposed. In this case, a protecting layer of synthetic resin is applied the sidewalls of the display panels **2a** and back light.

Furthermore, when the display panel **2a** is mounted on the chassis **16**, as shown in the drawing, the outer electrode **2k** where the electrode arrays **51**, **52** and **53** for transferring the data signals and common signals are provided therein is arranged at the opposite side to the joint portion **8** of the chassis **16**. However, the outer electrode **2k** is covered by an upper portion of the chassis **16**.

The chassis **16** may be mounted on the panel housing by means of a chassis fixing plate **16c**.

When the connecting joint portion of the supporting member **160** or chassis **16** are assembled in the openings or the connecting joint portion of the panel housing **20** and **40**, and thus the outer electrode **2k** is disposed at the connecting joint portions **20a** and **40a** or opening **8b** of the panel housing **20** and **40**.

When the display panels **2a** and **4a** are mounted on the panel housings **20** and **40**, both the supporting member **160** or chassis may not be used. That is, the supporting member and chassis are merely an protecting member which may be integrated as a module for display panel and circuit board. The supporting member may be commonly made of plastic materials and the chassis may be made of metal such as aluminum.

INDUSTRIAL APPLICABILITY

As described above, the present invention provides a foldable type portable display device for realizing the large-sized screen with the joint portion as non-display area between the two or more display panels is minimized.

According to the present invention, the non-display area as the joint portion may be compensate by means of the optical element, and the driving signals are divided and transferred to the two display elements for realizing a single large-sized screen.

The invention claimed is:

1. A portable display device comprising: at least two display elements; at least two foldable panel housings for receiving and supporting the display elements, circuit boards and other parts, respectively; and wherein one sidewall of the panel housings are cut to form an cutting zone, so that an opposite sidewalls of the display elements may be adjacently disposed each other when the panel housings are unfolded, wherein the display device further comprises an optical element, and the optical element is provided in a joint portion adjacent to the opposite sidewalls of the display elements to reduce the width of the joint portion.

2. A portable display device of claim 1, wherein the cutting zone of the panel housings allowing the opposite sidewalls of the display elements to be adjacently disposed is a connecting joint portions.

3. A portable display device of claim 2, wherein the cutting zone is an opening and a protecting member is provided at the opening.

4. A portable display device of claim 1, wherein the display device further comprises a supporting member for supporting the display element, the supporting member is provided with a connecting joint portion.

5. A portable display device of claim 4, wherein the connecting joint portion of the supporting member is disposed in a joint portion the panel housing.